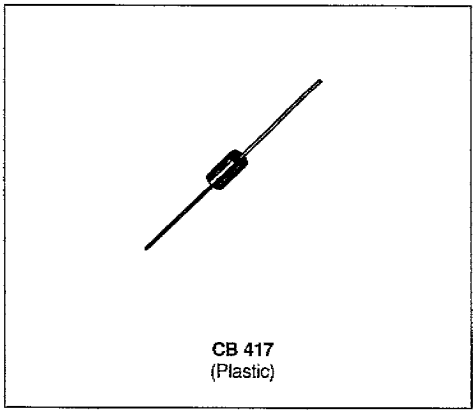
查询1N5349B供应商

SGS-THOMSON MICROELECTRONICS

1N 5333 B → 1N 5388 B

ZENER DIODES

- VOLTAGE RANGE : 3.3V TO 200V
- HERMETICALLY SEALED PLASTIC CASE
- HIGH SURGE CAPABILITY (up to 180W @ 8.3ms)



CB 417
(Plastic)

DESCRIPTION

5W silicon Zener diodes.

ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		Value	Unit
P_{tot}	Power Dissipation*	T_{amb} = 75°C	5	W
I_{ZM}	Continuous Reverse Current*	T_{amb} = 75°C	See page 2	A
I_{ZSM}	Peak Reverse Current	T_{amb} = 25°C	See page 2	A
T_{stg} T_j	Storage and Junction Temperature Range		– 65 to 175 – 65 to 200	°C
T_L	Maximum Temperature for Soldering during 10s at 4mm from case		230	°C

THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
$R_{th\ (j-a)}$	Junction–ambient*	25	°C/W

* On infinite heatsink with 10mm lead length.

ELECTRICAL CHARACTERISTICS (T_{amb} = 25°C unless otherwise specified)

	Types	V_{ZT}/I_{ZT}* nom. (V) (1)	I_{ZT}* (mA) (1)	r_{ZT}/I_{ZT}* max. (Ω) (1)	r_{ZK}/I_{ZK} max. 1.0mA (Ω)	I_R / V_R max. (μA)	(V)	∝VZ typ. (10^{-4}/°C)	I_{ZM} max. T_{amb} = 75°C (mA) (2)	ΔV_Z max. (V) (3)	I_{ZSM} max. (A) (4)
	1N 5333 B	3,3	380	3.0	400	300	1.0	− 6	1440	0.85	22.2
	1N 5334 B	3,6	350	2.5	500	150	1.0	− 5.5	1320	0.80	20.4
	1N 5335 B	3,9	320	2.0	500	50	1.0	− 5	1220	0.54	18.8
	1N 5336 B	4,3	290	2.0	500	10	1.0	− 4	1100	0.49	17.0
	1N 5337 B	4,7	260	2.0	450	5.0	1.0	− 2	1010	0.44	15.6
P	1N 5338 B	5,1	240	1.5	400	1.0	1.0	1	930	0.39	14.4
P	1N 5339 B	5.6	220	1.0	400	1.0	2.0	2.5	865	0.25	13.1
	1N 5340 B	6,0	200	1.0	300	1.0	3.0	2.8	790	0.19	12.2
P	1N 5341 B	6,2	200	1.0	200	1.0	3.0	3.2	765	0.10	11.8
P	1N 5342 B	6,8	175	1.0	200	10	5.2	4	700	0.15	10.8
	1N 5343 B	7,5	175	1.5	200	10	5.7	4.5	630	0.15	9.8
	1N 5344 B	8,2	150	1.5	200	10	6.2	4.8	580	0.20	8.9
	1N 5345 B	8,7	150	2.0	200	10	6.6	4.9	545	0.20	8.4
	1N 5346 B	9,1	150	2.0	150	7.5	6.9	5.1	520	0.22	8.1
	1N 5347 B	10	125	2.0	125	5.0	7.6	5.5	475	0.22	7.3
	1N 5348 B	11	125	2.5	125	5.0	8.4	6	430	0.25	11.0
P	1N 5349 B	12	100	2.5	125	2.0	9.1	6.5	395	0.25	10.1
	1N 5350 B	13	100	2.5	100	1.0	9.9	6.5	365	0.25	9.3
	1N 5351 B	14	100	2.5	75	1.0	10.6	7	340	0.25	8.6
P	1N 5352 B	15	75	2.5	75	1.0	11.5	7	315	0.25	8.1
P	1N 5353 B	16	75	2.5	75	1.0	12.2	7	295	0.30	7.6
	1N 5354 B	17	70	2.5	75	0.5	12.9	7	280	0.35	7.1
P	1N 5355 B	18	65	2.5	75	0.5	13.7	7.5	264	0.40	6.7
	1N 5356 B	19	65	3.0	75	0.5	14.4	7.5	250	0.40	6.4
	1N 5357 B	20	65	3.0	75	0.5	15.2	7.5	237	0.40	6.0
P	1N 5358 B	22	50	3.5	75	0.5	16.7	8	216	0.45	5.5
P	1N 5359 B	24	50	3.5	100	0.5	18.2	8	198	0.55	5.0
	1N 5360 B	25	50	4.0	110	0.5	19.0	8	190	0.55	4.8
P	1N 5361 B	27	50	5.0	120	0.5	20.6	8.5	176	0.60	4.5
	1N 5362 B	28	50	6.0	130	0.5	21.2	8.5	170	0.60	4.3
P	1N 5363 B	30	40	8.0	140	0.5	22.8	8.5	158	0.60	4.0
	1N 5364 B	33	40	10	150	0.5	25.1	8.5	144	0.60	3.7
P	1N 5365 B	36	30	11	160	0.5	27.4	9	132	0.65	3.4
	1N 5366 B	39	30	14	170	0.5	29.7	9	122	0.65	3.1
	1N 5367 B	43	30	20	190	0.5	32.7	9	110	0.70	2.8
	1N 5368 B	47	25	25	210	0.5	35.8	9	100	0.80	2.6
	1N 5369 B	51	25	27	230	0.5	38.8	9	93	0.90	2.4
	1N 5370 B	56	20	35	280	0.5	42.6	9	86	1.00	2.2
	1N 5371 B	60	20	40	350	0.5	45.5	9	79	1.20	2.0
P	1N 5372 B	62	20	42	400	0.5	47.1	9	76	1.35	1.9
	1N 5373 B	68	20	44	500	0.5	51.7	9	70	1.50	1.8
	1N 5374 B	75	20	45	620	0.5	56.0	9	63	1.60	1.6
	1N 5375 B	82	15	65	720	0.5	62.2	9	58	1.80	1.5
	1N 5376 B	87	15	75	760	0.5	66.0	9	54.5	2.00	1.4
	1N 5377 B	91	15	75	760	0.5	69.2	9	52.5	2.20	1.3
P	1N 5378 B	100	12	90	800	0.5	76.0	9.5	47.5	2.50	1.2
	1N 5379 B	110	12	125	1000	0.5	83.6	9.5	43	2.50	1.1
	1N 5380 B	120	10	170	1150	0.5	91.2	9.5	39.5	2.50	1.0
	1N 5381 B	130	10	190	1250	0.5	98.8	9.5	36.5	2.50	0.93
	1N 5382 B	140	8.0	230	1500	0.5	106	9.5	34	2.50	0.86

(1) Pulse test : $t_p \leq 50ms$ $\delta < 2\%$
(2) On infinite heatsink : d = 10mm
(3) Measured between 10% and 50% of I_{ZM}.
(4) Rectangular waveform (t_p = 10ms).

Tolerance on nominal V_{ZT} : ± 5%.
P : Preferred voltages.
Forward voltage drop : $V_F \leq 1.2V$ (T_{amb} = 25°C, I_F = 1A)

ELECTRICAL CHARACTERISTICS (continued)

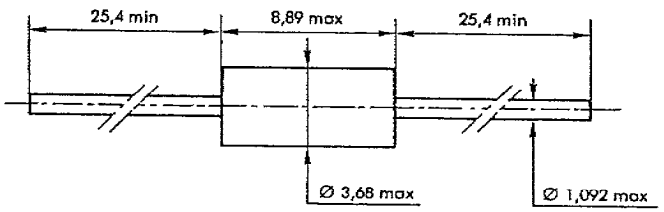
Types	V_{ZT}/I_{ZT}* nom. (V) (1)	I_{ZT}* (mA) (1)	r_{ZT}/I_{ZT}* max. (Ω) (1)	r_{ZK}/I_{ZK} max. 1.0mA (Ω)	I_R / V_R max. (μA)	(V)	∝VZ typ. (10^{-4}/°C)	I_{ZM} max. T_{amb}=75°C (mA) (2)	ΔV_Z max. (V) (3)	I_{ZSM} max. (A) (4)
P 1N 5383 B	150	8.0	330	1500	0.5	114	9.5	31.6	3.00	0.81
1N 5384 B	160	8.0	350	1650	0.5	122	9.5	29.4	3.00	0.76
1N 5385 B	170	8.0	380	1750	0.5	129	9.5	28	3.00	0.71
P 1N 5386 B	180	5.0	430	1750	0.5	137	9.5	26.4	4.00	0.67
1N 5387 B	190	5.0	450	1850	0.5	144	9.5	25	5.00	0.64
P 1N 5388 B	200	5.0	480	1850	0.5	152	10	23.6	5.00	0.60

(1) Pulse test : $t_p \leq 50ms$ $\delta < 2\%$
(2) On infinite heatsink : d = 10mm
(3) Measured between 10% and 50% of I_{ZM}.
(4) Rectangular waveform (t_p = 10ms).

Tolerance on nominal V_{ZT} : ± 5%.
P : Preferred voltages.
Forward voltage drop : $V_F \leq 1.2V$ (T_{amb} = 25°C, I_F = 1A)

PACKAGE MECHANICAL DATA

CB-417 Plastic



Cooling method : by convection (method A)
Marking : clear, ring at cathode end.
Weight : 0.6g

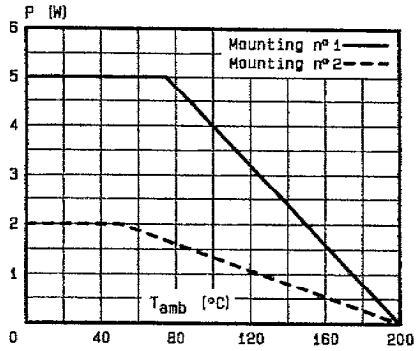


Fig.1 - Power dissipation versus ambient temperature.

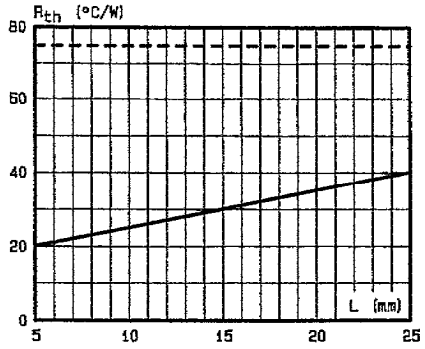


Fig.2 - Thermal resistance versus lead length.

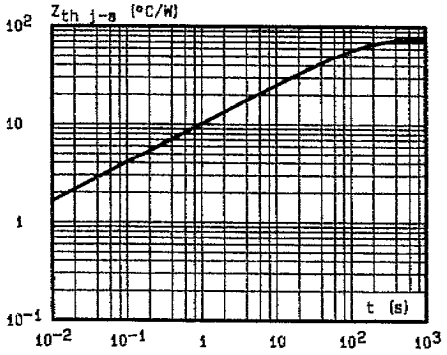
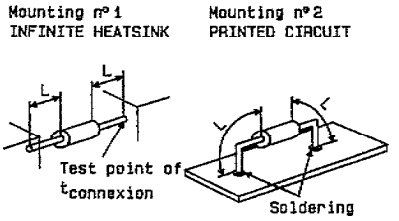


Fig.3 - Transient thermal impedance junction-ambient for mounting n°2 versus pulse duration (L = 10 mm).



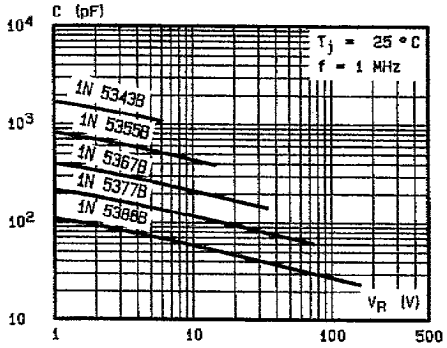


Fig.4 - Capacitance versus reverse applied voltage.

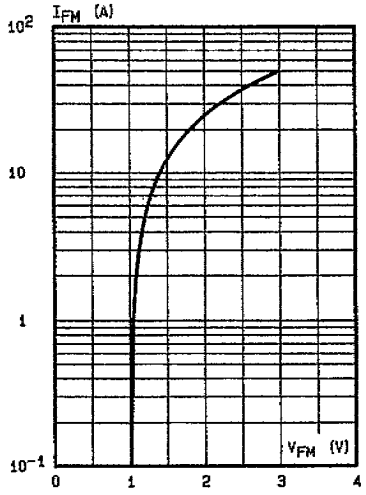


Fig.5 - Peak forward current versus peak forward voltage drop (typical values).

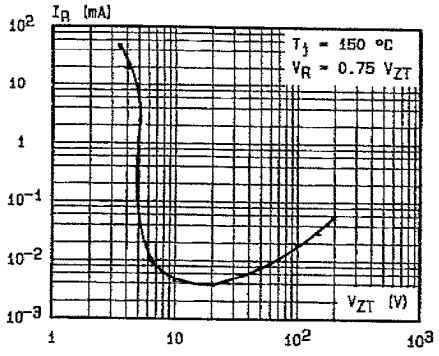


Fig.6 - Reverse current versus regulation voltage (typical values).

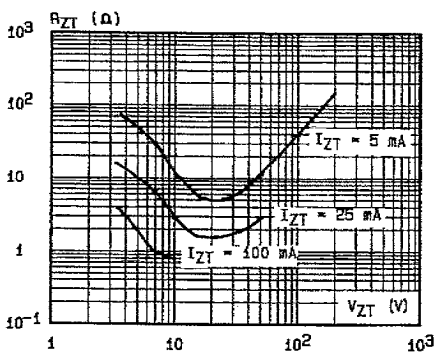


Fig.7 - Differential resistance versus regulation voltage (typical values).

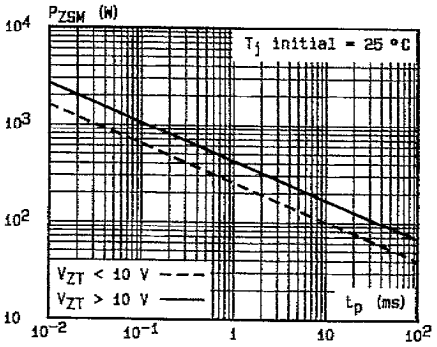


Fig.8 - Peak pulse power versus pulse duration (rectangular wave form) (maximum values).